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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,404	09/17/2003	Jun Shen	2527.0410001	3195
26111	7590	10/27/2006	EXAMINER	
STERNE, KESSLER, GOLDSTEIN & FOX PLLC 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			TRINH, MINH N	
			ART UNIT	PAPER NUMBER

3729

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,404

Applicant(s)

SHEN ET AL.

Examiner

Minh Trinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) 28-64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/8/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, species 1A (claims 1-27) in the reply filed on 9/1/06 is acknowledged. Thus, claims 28-64 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Invention, there being no allowable generic or linking claim. Election was made **without** traverse as indicated in the reply filed on 9/1/06.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: --Method for laminating electro-mechanical structure—or the like.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Huang et al (6,384,353).

Huang et al discloses the method of assembling a laminated electro-mechanical structure, comprising: stacking a plurality of structural layers to form a stack i.e., 110, 125, 127 wherein the plurality of structural layers 125, 127 has a first structural layer having a movable element 124 formed therein; and attaching each structural layer of the stack to an adjacent structural layer of the stack (see Fig 5).

5. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Ruan et al (6,633,212). Ruan et al discloses the method of the present invention comprising: stacking a plurality of structural layers 102, 104, 106 to form a stack wherein the plurality of structural layers has a first structural layer 106 having a movable element 112 formed therein; and attaching each structural layer of the stack to an adjacent structural layer of the stack (see Figs. 1-2H, and the discussion at cols 3-4).

As applied to claims 2-12, the Ruan discloses the aligning and forming stack structural (see process of Figs. 2A-2H), and the positioning of a magnet layer 102 as a permanent magnet in the stack (see col. 3, lines 20-25), and limitations of claims 4-5 (see col. 5, lines 55-60, col. 6, lines 38-48), and limitations of claims 6-12 are also satisfied by the Ruan see Figs. 2A-H and the discussed at cols. 5-8 including the positioning and configuration of the movable element versus the stack layers (see also Figs. 2A-H). Note that the magnetic material in form of permalloy as broadly as readable as the claimed permeability of the present application.

Claim Rejections - 35 USC § 103

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruan in view of Peterson et al (6495,895).

Ruan et al is silent about the limitations of claims 12-15, the Peterson et al disclose that see the discussion at col. 7, lines 10-19, 47-65, etc about the interconnection as seal material including epoxy as an adhesive. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teaching of Epoxy for interconnection a number structure layer as taught by Peterson et al onto the method invention of Ruan et al as so to obtain the mechanical attachment between the structural layers.

7. Claims 16-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruan.

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As applied to claims 16-27, regarding the sequential of the method steps recited in these claims. It would have been an obvious matter of design choice to form the process in order as stated in these claims since applicant has not disclosed that these features are critical, patentably distinguishing features and it appears that the invention would perform equally well with the teachings provided by the Ruan (see process steps indicates in Figs. 2A-H).

Limitations of claims 25 and 27 are also met by the Ruan reference (see Fig. 6A-B, which shows a latching device 100). Further, the device of each reference as broadly as readable as the device of the present application which including capacitor or the like, etc.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (571) 272-4569. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mt
10/26/06



MINH TRINH
PRIMARY EXAMINER